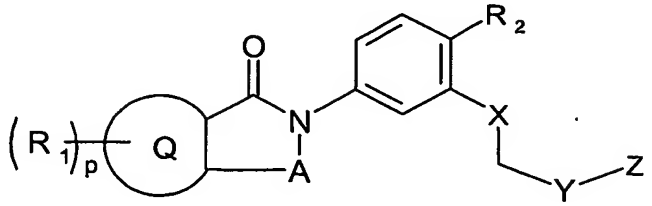
Claims

1. A compound of formula (I) or a pharmaceutically acceptable salt thereof:



(I)

wherein:

R_1 is halogen, cyano, C_{1-6}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkyloxy, C_{1-6}alkoxy, C_{1-6}alkylthio, hydroxy, amino, mono- or di-C_{1-6}alkylamino, an N-linked 4 to 7 membered heterocyclic group, nitro, haloC_{1-6}alkyl, haloC_{1-6}alkoxy, aryl, $-COOR_3$, $-COR_4$ (wherein R_3 and R_4, are independently hydrogen or C_{1-6}alkyl) or $-COR_5$ (wherein R_5 is amino, mono- or di-C_{1-6}alkylamino or an N-linked 4 to 7 membered heterocyclic group);

p is 0, 1 or 2 or 3;

Q is a 6- membered aromatic group or a 6-membered heteroaromatic group;

A is $-(CH_2-CH_2)-$, $-(CH=CH)-$, or a group $-(CHR_7)-$ wherein R_7 is hydrogen, halogen, hydroxy, cyano, nitro, C_{1-6}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkyloxy, haloC_{1-6}alkyl, C_{1-6}alkoxy, haloC_{1-6}alkoxy or C_{1-6}alkylthio;

R_2 is hydrogen, halogen, hydroxy, cyano, nitro, C_{1-6}alkyl, C_{1-6}alkanoyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkyloxy, haloC_{1-6}alkyl, C_{1-6}alkoxy, haloC_{1-6}alkoxy, C_{1-6}alkylthio, amino, mono- or di-C_{1-6}alkylamino or an N-linked 4 to 7 membered heterocyclic group;

X is oxygen, sulfur, $-CH_2-$ or NR_8 wherein R_8 is hydrogen or C_{1-6}alkyl;

Y is a single bond, $-CH_2-$, $-(CH_2)_2-$ or $-CH=CH-$; and

Z is an optionally substituted N-linked heterocyclic group or a C-linked 4 to 7 membered heterocyclic group containing at least one nitrogen, or Z is $-NR_9R_{10}$ where R_9 and R_{10} are independently hydrogen or C_{1-6}alkyl.

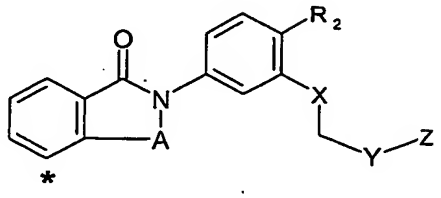
2. A compound as claimed in claim 1, wherein when R_7 is hydrogen.

3. A compound as claimed in claim 1 or claim 2, wherein A is CH_2-.

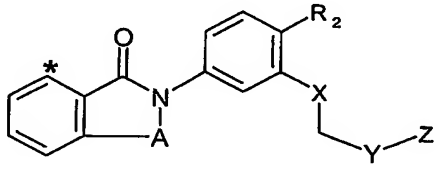
4. A compound as claimed in any of claims 1-3, wherein Q is phenyl.

5. A compound as claimed in any of claims 1-4, wherein p is 1, 2 or 3, and R_1 is/are halogen (particularly chloro or fluoro), C_{1-6}alkyl (particularly methyl) or CF_3.

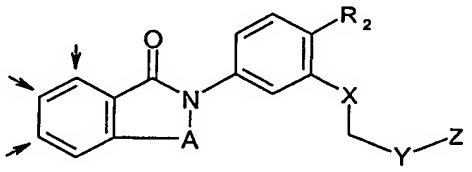
6. A compound as claimed in any of claims 1-5, wherein when R_1 is attached at the position marked below with an asterisk, R_1 is fluoro:



7. A compound as claimed in any of claims 1-6, wherein when Q is phenyl and p is 1, R_1 is attached at the position marked below with an asterisk:



8. A compound as claimed in any of claims 1-7, wherein when Q is phenyl and p is 2 or 3, R_1 is attached at two or more of the positions marked below with arrows:



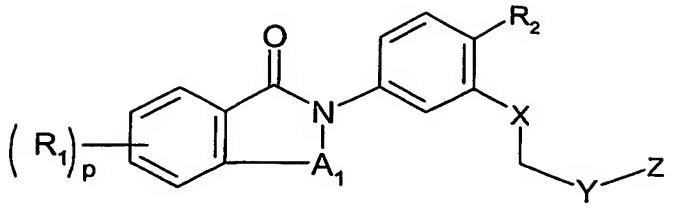
9. A compound as claimed in any of claims 1-8, wherein R_2 is C_{1-6}alkoxy, particularly methoxy.

10. A compound as claimed in any of claims 1-9, wherein X is oxygen.

11. A compound as claimed in any of claims 1-10, wherein Y is $-CH_2-$.

12. A compound as claimed in any of claims 1-11, wherein Z is an optionally substituted N-linked 4 to 7 membered heterocycle, in particular optionally substituted piperidyl.

13. A compound as claimed in claim 1 having the formula (Ia):



(Ia)

wherein R_1, p, R_2, X, Y, Z, are as defined in any of claims 1-12 and A_1 is $-CH_2-$ or -HC(Me)-.

14. A compound as claimed in claim 1, which is

2-[4-Methoxy-3-(2-piperidin-1-yl-ethoxy)phenyl]-2,3-dihydroisoindol-1-one
6-Fluoro-2-[4-methoxy-3-(2-piperidin-1-yl-ethoxy)phenyl]-2,3-dihydroisoindol-1-one
7-Bromo-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one hydrochloride
7-Chloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-3-methyl-2,3-dihydroisoindol-1-one
2-{4-Methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-7-trifluoromethyl-2,3-dihydroisoindol-1-one
5,7-Dichloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
7-Chloro-2-[4-methoxy-3-(2-piperidin-1-yl-ethoxy)phenyl]-2,3-dihydroisoindol-1-one
6-Chloro-2-[4-methoxy-3-(2-piperidin-1-yl-ethoxy)phenyl]-2,3-dihydroisoindol-1-one hydrochloride
5-Chloro-2-[4-methoxy-3-(2-piperidin-1-yl-ethoxy)phenyl]-2,3-dihydroisoindol-1-one
5,7-Dichloro-2-{4-methoxy-3-[2-(*cis*-2,6-dimethyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
7-Chloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
6-Chloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
5-Chloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
7-Methyl-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
6,7-Difluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
5,6-Dichloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
7-Fluoro-2-{4-methoxy-3-[2-(piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one
4-Fluoro-2-{4-methoxy-3-[2-(piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

5,7-Dimethyl-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

6,7-Dichloro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

5-Fluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-7-trifluoromethyl-2,3-dihydroisoindol-1-one

7-Chloro-4,5-difluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

4-Fluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}- 7-trifluoromethyl-2,3-dihydroisoindol-1-one

4-Fluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}- 7-trifluoromethyl-2,3-dihydroisoindol-1-one

4-Fluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}- 7-trifluoromethyl-2,3-dihydroisoindol-1-one

4-Fluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}- 7-trifluoromethyl-2,3-dihydroisoindol-1-one

5,7-Dichloro-2-{4-methoxy-3-[2-(4,4-dimethyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

5,7-Dichloro-2-{4-methoxy-3-[2-(azepan-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

5,7-Dichloro-2-{4-methoxy-3-[2-(2-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

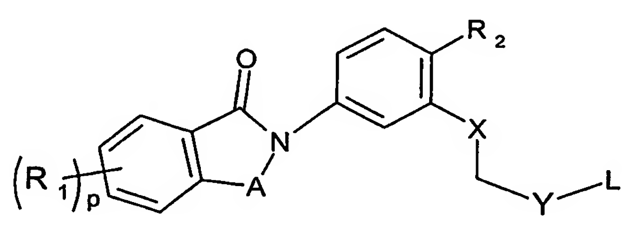
6-{4-Methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]-phenyl}-2-methyl-4-trifluoromethyl-6,7-dihydro-pyrrolo[3,4-*b*]pyridin-5-one

5,7-Dichloro-4-fluoro-2-{4-methoxy-3-[2-(4-methyl-piperidin-1-yl)-ethoxy]phenyl}-2,3-dihydroisoindol-1-one

or a pharmaceutically acceptable salt thereof.

15. A process for the preparation of a compound as claimed in any of claims 1-14 or a pharmaceutically acceptable salt thereof, which process comprises:

(a) reacting a compound of formula (II):



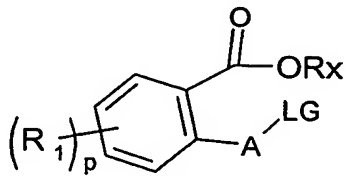
(II)

wherein R_1, R_2, p, A, X, and Y are as defined for formula (I), and L is a leaving group, with a compound of formula (III):

Z-H
(III)

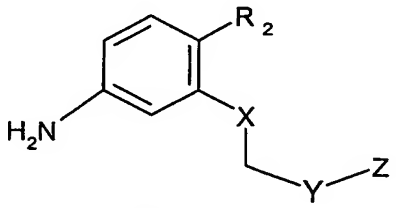
wherein Z is as defined for formula (I); or

(b) reacting a compound of formula (IV):



(IV)

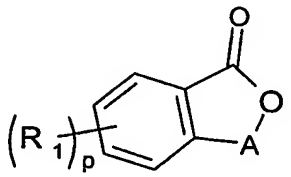
wherein Rx is alkyl and LG is a suitable leaving group, with a compound of formula (V) or a corresponding salt:



(V)

or

(c) reacting a compound of formula (VI):



(VI)

with a compound of formula (V) in the presence of $AlMe_3$ or a similar oxophilic reagent followed by treatment of the resulting amide under dehydrating conditions, e.g. with PPh_3 and dialkylazadicarboxylate;

and thereafter, for either process (a), process (b) or process (c), optionally followed by:

- removing any protecting groups; and/or
- converting a compound of formula (I) into another compound of formula (I); and/or
- forming a pharmaceutically acceptable salt.

16. A pharmaceutical composition comprising a compound as defined in any of claims 1-14 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or excipient.

17. A process for preparing a pharmaceutical composition as defined in claim 16, the process comprising mixing a compound as defined in any of claims 1-14 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier or excipient.

18. A compound as defined in any of claims 1-14 or a pharmaceutically acceptable salt thereof for use as a therapeutic substance.

19. A compound as defined in any of claims 1-14 for use in the treatment of a CNS disorder such as depression or anxiety.

20. A method of treatment of a CNS disorder in mammals including humans, which comprises administering to the sufferer a therapeutically safe and effective amount of a compound as claimed in any of claims 1-14 or a pharmaceutically acceptable salt thereof.

21. A method as claimed in claim 20, wherein the CNS disorder is depression or anxiety.

22. Use of a compound as claimed in any of claims 1-14 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for use in the treatment of a CNS disorder.

23. The use as claimed in claim 22, wherein the CNS disorder is depression or anxiety.